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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/541,089	03/31/2000	Hiroaki Takeuchi	0397-0404P	4024
7590	11/05/2003		EXAMINER	
Terrell C Birch Birch Stewart Kolasch & Birch LLP P O Box 747 Falls Church, VA 22040-0747			PADGETT, MARIANNE L	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/541,089

Applicant(s)

Takeuchi et al

Examiner

M.L. Padgett

Group Art Unit

1762

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ R sponse to communication(s) filed on 7/3/03

☒ This action is **FINAL**.

- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1 & 4-10 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1 & 4-10 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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1. The 112 rejections made in paper #14 have been corrected by the amendments.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject-matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 4, 5, 8 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Foster et al(6,140,215) as applied in paper #10 (mailed 11/7/02), section 3, and paper #14 (mailed 4/4/03), section 7.

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Note any effect on a surface, i.e., coating, etching, cleaning, functionalization, implanting, etc., is a surface treatment, and Foster et al teach coating.

4. Claims 6-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al as applied in section 4 of paper #10, and paper #14, section 7.

5. Claims 1 and 4-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki et al (5,932,302) as applied in section 5 of paper #10 (mailed 11/7/02), and paper #14 (mailed 4/4/03), section 7.

As was previously noted, Yamazaki et al is specifically teaching the surface treatment of depositing a carbon coating. Yamazaki et al also discusses etching occurring with their process configuration (Col. 9, lines 53-68⁺), where gases such as carbon halide may be employed for either coating or etching.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al as applied to claims 1, 4, 5, 8 and 10 above, and further in view of Yamazaki et al.

Foster et al is directed to treating surfaces, specifically by plasma coating processes, however as is noted in previous discussions of Yamazaki et al, plasma apparatus therein are shown to be used for both etching and coating operations, hence this known alternative use for plasma apparatus in general, would have been known and obvious to one of ordinary skill in the art, hence obvious to apply to Foster et al's apparatus, especially as films containing Ti, which are the specific focus therein, are typically deposited in many layered device manufacturing, where the multiple steps employed are likely to include etching. Whenever one apparatus can be used for multiple functions, it may be beneficially for economic reasons to do so due to the cost

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of the apparatus and contamination or damage that may occur in changing apparatus, hence motivating multiple uses, etching, coating, etc., for an apparatus.

7. Applicant's arguments filed July 3, 2003 have been fully considered but they are not persuasive. The amendments to the claims made no substantive changes to the meaning of the claims, except positively claiming the effects on the substrate, which have been discussed above. Otherwise there are no new issues, and applicant's arguments have been repeatedly answered in previous papers, especially see section 7 of paper #14, mailed 4/4/03.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M L. Padgett whose telephone number is 703-308-2336 or after mid Dec. (571) 272-1425. The examiner can normally be reached on Monday-Friday from about 8:30 am to 4:30 pm.

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The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

M. Padgett/lap
October 28, 2003
November 4, 2003

**MARIANNE PADGETT
PRIMARY EXAMINER**
